

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) Antibody for the diagnosis or treatment of neuropsychiatric diseases, ~~characterised in that wherein~~ the antibody recognizes misfolded proteins that can be assigned specifically to one of the diseases.
2. (Currently Amended) Antibody according to Claim 1, ~~characterized in that wherein~~ the disease is schizophrenia.
3. (Currently Amended) Antibody according to Claim 1, ~~characterized in that wherein~~ the disease is depression.
4. (Currently Amended) Antibody according to Claim 1, ~~characterized in that wherein~~ the disease is a bipolar affective disorder.
5. (Currently Amended) Antibody according to ~~any one of the Claims 1-4,~~ ~~characterized in that~~ claim 1, wherein the antibody recognizes misfolded proteins that are specific for multiple diseases, whereby the assignment to a disease can be made by means of further properties of the protein and/or by means of its origin.

6. (Currently Amended) Antibody according to ~~any one of the Claims 1-5,~~  
**characterized in that** claim 1, wherein the antibody ~~it~~ is obtained by immunization of  
suitable animals with purified brain fractions of patients afflicted by a  
neuropsychiatric disease, whereby steps that effect an enrichment of misfolded  
proteins are provided in the purification.

7. (Currently Amended) Antibody according to ~~any one of the Claims 1-6,~~  
**characterized in that** claim 6, wherein a purification step with ionic detergents is  
provided in the purification.

8. (Currently Amended) Antibody according to ~~any one of the Claims 1-7,~~  
**characterized in that** claim 7, wherein the purification step is carried out at 0-10 °C.

9. (Currently Amended) Antibody according to ~~any one of the Claims 1-8,~~  
**characterized in that** claim 7, wherein the ionic detergent used in the purification  
step is used at a concentration between 0.2 and 2%.

10. (Currently Amended) Antibody according to ~~any one of the Claims 1-9,~~  
**characterized in that** claim 7, wherein the ionic detergent used in the purification is  
sarcosyl.

11. (Currently Amended) Antibody according to ~~any one of the Claims 1-10,~~  
**characterized in that** claim 7, wherein the purification step with an ionic detergent

comprises an ultracentrifugation step at at least 100,000 x g.

12. (Currently Amended) Antibody according to ~~any one of the Claims 1-11,~~  
**characterized in that** claim 6, wherein a purification step with  $\beta$ -sheet-binding  
substances such as Congo red, thioflavine or  $\beta$ -sheet-binding peptides is provided in  
the purification, wherein these substances or peptides may be immobilized, if  
applicable.

13. (Currently Amended) Antibody according to ~~any one of the Claims 1-12,~~  
**characterized in that** claim 6, wherein a protease digestion step at a temperature of  
0-10°C is provided in the purification.

14. (Currently Amended) Antibody according to ~~any one of the Claims 1-13,~~  
**characterized in that** claim 1, wherein the antibody is a monoclonal antibody.

15. (Currently Amended) Antibody according to ~~any one of the Claims 1-14,~~  
**characterized in that** claim 1, wherein the antibody is a conformation-specific  
monoclonal antibody.

16. (Currently Amended) Antibody according to ~~any one of the Claims 1-15,~~  
**characterized in that** claim 1, wherein the antibody is a recombinant antibody.

17. (Currently Amended) Antibody according to ~~any one of the Claims 1-16,~~  
**characterized in that** claim 1, wherein the antibody is a blood-brain barrier-crossing

antibody.

18. (Currently Amended) Antibody according to ~~any one of the Claims 1-17,~~  
~~characterized in that~~ claim 1, wherein the antibody is a chimeric or humanized  
antibody.

19. (Currently Amended) Antibody according to ~~any one of the Claims 1-18,~~  
~~characterized in that~~ claim 1, wherein the antibody is an antibody fragment.

20. (Currently Amended) Antibody according to ~~any one of the Claims 1-19,~~  
~~characterized in that~~ claim 1, wherein the antibody is coupled to a pharmaceutically  
active substance.

21. (Currently Amended) Antibody according to ~~any one of the Claims 1-20,~~  
~~characterized in that~~ claim 1, wherein the antibody is coupled to an isotope or a  
radioactive labeled molecule.

22. (Currently Amended) Antibody termed 7B2 that can be produced by  
hybridoma cells that are deposited under the number, DSM ACC2713, for diagnosis  
or treatment of diseases, in particular of neuropsychiatric diseases, such as  
schizophrenia or depression or bipolar affective disorder~~according to any one of the~~  
~~Claims 1-4.~~

23. (Currently Amended) Antibody termed 9C9 that can be produced by

hybridoma cells that are deposited under the number, DSM ACC2714, for diagnosis or treatment of diseases, in particular of neuropsychiatric diseases, such as schizophrenia or depression or bipolar affective disorder~~according to any one of the Claims 1-4.~~

24. (Currently Amended) Method for diagnosis of neuropsychiatric diseases, such as schizophrenia or depression or bipolar affective disorder~~according to Claim 1-4~~ by means of antibodies that bind to neuropsychiatric disease-specific proteins, in which method

- a) the antibodies are contacted with a tissue or body fluid sample of a patient,
- b) antibody-protein complexes thus formed, if any, are detected, and
- c) the presence, if applicable, of antibody-protein complexes is considered to be a positive finding for a neuropsychiatric disease,

~~characterised in that~~wherein

- d) an antibody that recognizes misfolded proteins that can be assigned specifically to one of the diseases~~according to any one of the Claims 1-23~~ is used in the method.

25. (Currently Amended) ~~Method~~The method according to Claim 24, ~~characterized in that~~wherein the presence of antibody-protein complexes is detected by means of ELISA, Western blotting or immuno-coupled fluorescence methods.

26. (Currently Amended) ~~Method~~The method according to ~~any one of the Claims 24 or 25,~~claim 24, ~~characterized in that~~wherein the positive finding for a

neuropsychiatric disease is a diagnosed predisposition and/or a positive diagnosis for one of the diseases, schizophrenia or depression or bipolar affective disorder ~~according to any one of the Claims 1-4.~~

27. (Currently Amended) ~~Method~~The method according to ~~any one of the Claims 24-26, characterized in that~~ claim 24, wherein the body fluid sample to be tested is liquor, urine, blood or serum.

28. (Currently Amended) Use of antibodies according to ~~any one of the Claims 1-24 claim 1,~~ for producing a pharmaceutical preparation that can be administered to the patient, in particular in a blood-brain barrier-crossing form, for treatment of the neuropsychiatric diseases ~~according to any one of the Claims 1-4~~ schizophrenia or depression or bipolar affective disorder.

29. (Currently Amended) Use according to Claim 28, ~~characterized in that~~ wherein the antibodies are coupled to pharmaceutically active substances.

30. (Currently Amended) Use according to Claim 28, ~~characterized in that~~ wherein the antibodies are coupled to isotopes or radioactively labeled molecules.

31. (Currently Amended) Use of small-molecule, blood-brain barrier-crossing agents that can be administered to the patient, for producing a pharmaceutical composition that can be administered to a patient in a blood-brain barrier-crossing form, for treatment of the neuropsychiatric diseases, schizophrenia or depression or

bipolar affective disorder~~according to any one of the Claims 2-4, characterized in that wherein the agents recognize misfolded proteins that can be assigned specifically to one of the diseasesthe same surface structures as the antibodies according to any one of the Claims 1-23.~~

32. (Currently Amended) Use according to Claim 31, ~~characterized in that wherein~~ the small-molecule agents are organic molecules that bind specifically to epitopes that are recognized by the antibodies ~~according to any one of the Claims 1-23.~~

33. (Currently Amended) Use according to ~~any one of the Claims~~claim 31 or 32, in which the agents comprise multiple ligands that are connected to each other by spacers, and said ligands each bind specifically to various, non-overlapping epitopes that are recognized by the agents~~antibodies according to any one of the Claims 1-23.~~

34. (Currently Amended) Use of immunogenic substances that elicit an immune response such that the immune system of a patient forms antibodies against misfolded proteins according to Claim 1, for producing a pharmaceutical composition that can be administered to a patient in a blood-brain barrier-crossing form, for treatment of the neuropsychiatric diseases schizophrenia or depression or bipolar affective disorder~~according to any one of the Claims 1-4.~~

35. (Currently Amended) Use according to Claim 34, ~~characterized in that~~

wherein the immunogenic substances are misfolded proteins or fragments that can be assigned to one of the diseases, schizophrenia or depression or bipolar affective disorder~~according to Claims 1-4.~~